

**CLAIMS**

We claim:

1. A crystalline  $7\beta$ -[(Z)-2-(2-amino-4-thiazolyl)-2-hydroxyiminoacetamido]-3-vinyl-3-cephem-4-carboxylic acid (Crystal B of Cefdinir) which shows peaks in its powder

5 X-ray diffraction pattern at the diffraction angles of about  $5.8\pm0.2$ ,  $11.7\pm0.2$ ,  $16.1\pm0.2$ ,  $18.6\pm0.2$ ,  $20.9\pm0.2$ ,  $22.2\pm0.2$ ,  $24.4\pm0.2$  and  $25.6\pm0.2$  two theta degrees.

2. Crystalline substance of claim 1 which is characterized by infrared absorption

10 spectrum pattern having characteristic peaks at approximately 1017, 1049, 1121, 1134, 1191, 1428, 1545, 1613, 1667, 1780, 3295 and  $3595\text{ Cm}^{-1}$ .

3. Crystalline substance of claim 1, which contains water in the range of

5.5 to 7.0% by weight.

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4. A process for preparing crystalline  $7\beta$ -[(Z)-2-(2-amino-4-thiazolyl)-2

hydroxyiminoacetamido]-3-vinyl-3-cephem-4-carboxylic acid (Crystal B of cefdinir) which comprises the steps of:

20 Reacting crystals A of cefdinir in water with trifluoroacetic acid at 35-40°C to form cefdinir trifluoroacetic acid salt,

optionally isolating the said cefdinir trifluoroacetic acid salt,

neutralizing the said cefdinir trifluoroacetic acid salt by treatment with a base in water at a temperature between 0°C to 30°C,

isolating crystal B of cefdinir by filtration.

- 5        5. The process according to claim 4, wherein the base used for neutralization is  
preferably ammonia.
6. The process according to claim 4, wherein, the said neutralization step is  
conducted at a temperature range of 0-30°C and preferably at 20-25°C.
- 10      7. A pharmaceutical composition comprising a therapeutically effective amount of  
Crystal B of cefdinir and a pharmaceutically acceptable carrier.